

REMARKS

Claims 1-17 are pending in this application. By this Amendment, claims 1-12 are amended, as are the specification and the drawings. Claims 13-17 are added. The amendments introduce no new matter, better clarify the subject matter recited in the claims, and/or are made in response to objections to form raised in the Office Action. The added claims are supported at least by the claims as originally filed. Reconsideration of the application based on the above amendments and the following remarks is respectfully requested.

I. Formal Matters

The Office Action, in paragraph 1, objects to the drawings under 37 C.F.R. §1.83(a) as not showing every feature specified in the claims specifically, the "tower crane" and/or "folding tower crane" recited in claims 1, 3, 4, 6, 7 and 9; the "mounting plate" recited in claims 2 and 6; and the "sheet" recited in claim 8 are asserted not to be shown. Applicant amends claims 1-4 and 6-9, and adds Figs. 8 and 9, in order to obviate the objections to the drawings. Applicant does not concede that the amendments to the claims, or the new figures, were necessary in order to overcome the objection because, for example, the tower crane is shown partially in Figs. 1, 2 and 7, the folding mechanism of the crane is not shown but it is also not claimed, the mounting plate is constituted by the head 10 shown in at least Figs. 1-4 and 7, and the sheet forms the pivot 8 shown as the hatched area shown in Fig. 6. In attempting, however, to better clarify and/or broaden the claim language with regard to the recited features, Applicant has amended the claims to obviate the objections. Withdrawal of the objections to the drawings enumerated in paragraph 1 of the Office Action is respectfully requested.

The Office Action, in paragraph 2, objects to the drawings for failing to comply with 37 C.F.R. §1.84(b)(4) because reference characters "5" and "9" in Figs. 2-7 are asserted to

both designate the arm support with transmission cable running inside. Element number 5 designates the support arm and element number 9 designates a tube that is a part of the support arm 5. Claim 1 recites, among other features, a support arm that can be pivotally mounted to a lower frame of a lifting machinery. Claim 2 recites the support arm further comprising, among other features, a curved or bent tube extending from the base part. As such, reference characters "5" and "9" designate different elements as are independently depicted in the figures and separately recited in the claims. Withdrawal of the objections to the drawings enumerated in paragraph 2 of the Office Action is respectfully requested.

The Office Action, in paragraph 3, objects to the drawings under 37 C.F.R. §1.83(b) for being incomplete. The Office Action quotes 37 C.F.R. §1.83(b) and then asserts "it is not clear how to figure out or to understand the 'tower crane with the arm support to be connected to the lifting machine' as set in the drawings 1 and 2." Applicant respectfully submits that all of the requirements of 37 C.F.R. §1.83(b) are met with the inclusion of Figs. 8 and 9. The radio-control antenna support arm for lifting machinery is depicted adequately in Figs. 1, 2, 4 and 7. The "old structure," i.e., the lower frame of the lifting machinery, as recited in the claims, is adequately depicted in the figures in sufficient enough detail to depict the connection to the disclosed embodiments. Withdrawal of the objection to the drawings enumerated in paragraph 3 of the Office Action is respectfully requested.

The Office Action, in paragraph 4, objects to claims 3-4 under 37 C.F.R. §1.75(c) as being in improper dependent form for failing to further limit the subject matter of a previous claim. Claim 1 recites, among other features, that the support arm can be oriented about the vertical pivoting axis ... such that the upper support arm can be positioned in at least two separate angular positions. Claim 3 recites, among other features, that the at least two separate angular positions in which the support arm can be positioned comprise a position folded back against the lower frame of the lifting machinery and at least one position usable

to position the head to be separated from the lower frame of the lifting machinery. With this language, claim 3 further limits the at least two separate angular positions recited in independent claim 1. In like manner, claim 4 further limits the at least two separate angular positions to include a first position folded back against the lower frame of the lifting machinery, a second position usable to position the head to be separated from the lower frame of the lifting machinery and at least a third position usable to position the head bringing the radio-control antenna at least one of toward or in front of the lower frame of the lifting machinery. For at least these reasons, claims 3 and 4 further limit the at least two separate angular positions recited in independent claim 1 and as such are not in improper dependent form. Withdrawal of the objections to claims 3 and 4 are respectfully requested.

The Office Action, in paragraph 5, objects to claims 2-4, 6, 9 and 10 for informalities. Claims 2-4, 6, 9 and 10 are amended to obviate the objections. Withdrawal of the objections to claims 2-4, 6, 9 and 10 are respectfully requested.

II. The Claims Define Patentable Subject Matter

The Office Action, in paragraph 7, rejects claims 1 and 3-5 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,721,213 to Eitel. The Office Action, in paragraph 9, rejects claims 2 and 6-12 under 35 U.S.C. §103(a) as being unpatentable over Eitel in view of U.S. Patent No. 4,607,389 to Halgrimson. These rejections are respectfully traversed.

Eitel teaches equipment for installing apparatus in an elevated location at a site, the equipment comprising an aerial lift and a crane located at the site (Abstract). Each of the aerial lift and the crane comprises a vehicle, boom structures mounted on the vehicle and control means for the boom structures (see Fig. 1). A workman's bucket mounted on the boom carries controls for operating each of the boom structures so that a single workman in the workman's bucket can control the operation of both boom structures (Abstract). With reference to Figs. 1 and 2 of Eitel, the Office Action attempts to map the features recited in at

least independent claim 1 to the invention disclosed in those figures. Specifically, the Office Action attempts to map the details of the boom structure 26 to the features of a radio-control antenna support arm recited in at least independent claim 1. The support structure 28 which is mounted upon the frame work or chassis for rotation about a vertical axis, the lower boom or arm 29 and the upper arm or boom 33 and the basket or platform 36 are asserted to correspond to a radio-control antenna support arm that can be pivotally mounted to a lower frame of a lifting machinery and a head upon which at least one radio-control antenna is mounted, wherein the head is radially offset from a vertical pivoting axis of the support arm and the support arm can be oriented about the vertical pivoting axis on the lower frame of the lifting machinery such that the support arm can be positioned in at least two separate angular positions. This analysis is incorrect, as discussed below.

The alleged support arm 29, 33 of Eitel, which the Office Action refers to, is actually the main articulated arm of the first vehicle and the supporting bucket, and not an antenna support arm. The antenna in Eitel is mounted to the bucket and provides a radio link with another antenna carried by another vehicle according to an overall configuration that cannot reasonably be read to teach, or even to have suggested, all of the features recited in at least independent claim 1. Neither of the antennas disclosed in Eitel is directly mounted on a support arm usable to move the antenna as is recited in the instant claims. Therefore, Eitel cannot accomplish an advantage of the subject matter recited in claim 1, which is that the antenna can be moved and kept from being interfered with by the metal structure or the like.

Claim 1 recites a radio-control antenna support device for lifting machinery, comprising: a support arm that can be pivotally mounted to a lower frame of a lifting machinery; and a head upon which is mounted at least one radio-control antenna, wherein the head is radially offset from a vertical pivoting axis of the support arm and the support arm can be oriented about the vertical pivoting axis on the lower frame of the lifting machinery such

that the support arm can be positioned in at least two separate angular positions. These at least two separate angular positions are further defined in at least claims 3 and 4.

For at least the above reasons, Eitel cannot reasonably be read to teach, or even to have suggested, the combination of all of the features recited in at least independent claim 1. Additionally, Eitel neither teaches, nor would it have suggested, the combinations of all of the features recited in dependent claims 3-5 for at least their respective dependence on independent claim 1, as well as for the separately patentable subject matter which each of these claims recites.

Halgrimson teaches a communication system for transmitting an electrical signal from a transmission tower and includes a first transceiver located adjacent the base of the tower which is in communication with a source of an electrical signal which is to be transmitted, a second transceiver located in a removable enclosure adjacent the top of the tower for receiving the transmitted electrical signal from the first transceiver and a third transceiver for retransmitting the electrical signal from the tower (Abstract). Halgrimson discloses that by this arrangement there is no need for stringing coaxial cable from the ground based transmitter to the antenna mounted to the top of the tower, thereby eliminating the power loss associated with the use of such coaxial cable (Abstract).

In other words, Halgrimson has nothing to do with crane, lifting apparatus, or radio control thereof. Halgrimson discloses simply a fixed antenna mast, each of the various antennas mounted to the fixed mast is fixed relative to the mast. Additionally, the Office Action's suggested motivation for the proposed combination (i.e., "to provide a strong signal") is not even related to the features of Halgrimson that are alleged to correspond to the features of Applicant's claims.

To the extent to which Halgrimson may even be combinable with Eitel, a conclusion which Applicant does not concede for the reasons noted above, Halgrimson does not

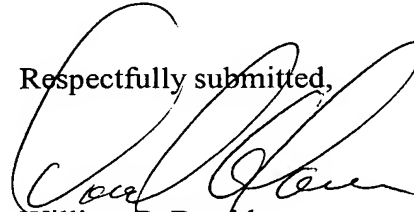
overcome the shortfalls in the application of Eitel to at least the features recited in at least independent claim 1. As such, claims 2 and 6-12 are not suggested by the combination of the applied references for at least the respective dependence of these claims on independent claim 1, as well as for the separately patentable subject matter which each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejections of claims 1-12 under 35 U.S.C. §§102(b) and 103(a) as being anticipated by, or unpatentable over Eitel, or the combination of Eitel and Halgrimson, are respectfully requested.

In view of the foregoing, Applicant respectfully submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-17 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number set forth below.

Respectfully submitted,



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Attachment:
Replacement Drawing Sheet (Figs. 8 and 9)

WPB:DAT

Date: June 22, 2005

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<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
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Amendments to the Drawings:

The attached replacement drawing sheet adds Figs. 8 and 9.

Attachment: Replacement Sheets